

Inventor(s): Lichtenhan, et al.

Appl. No.: 09 631,892

Series Code ↑

Serial No. ↑

Filed: August 4, 2000

Commissioner of Patents  
Washington, D.C. 20231

Group Art Unit

1712

Examiner:

J. Robertson

Atty. Dkt.

P 0282005

M#

Client Ref

Appl. Title:

PROCESS FOR THE FORMATION OF  
POLYHEDRAL OLIGOMERIC  
SILSESQUIOXANES

Sir:

**AMENDMENT AND RESPONSE**

Date: May 3, 2002

This is a amendment in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereinto by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

**FEE REQUIREMENTS FOR CLAIMS AS AMENDED**

## 1. Small Entity claim

- A. ☐ NOT made  
B. ☐ Withdrawn  
C. ☐ made herewith  
D. ☒ made previously

For B & C  
See **Required  
Separate Paper**  
(Pat-256)

Claims remaining after amendment	Highest number previously paid for	Present Extra	Large/Small Entity	Additional Fee	Fee Code Lg/Sm
2. Total Effective Claims	116	**minus 126 0	x \$18/\$9 =	+ \$0	103/203
3. Independent Claims	8	***minus 8 0	x \$84/\$42 =	+ \$0	102/202
4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application) ..... add			+ \$280/\$140 =	+ \$0	104/204
5. Original due Date: May 11, 2002 <input type="checkbox"/> NONE					
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached (1 mo) \$110/\$55 = (2 mos) \$400/\$200 = (3 mos) \$920/\$460 = (Usable only for ≤ 2mo.OA --- 4 mos) \$1,440/\$720= (Usable only for 30 day/1mo.OA --- 5 mos) \$1,960/\$980=			+ \$0		115/215 116/216 117/217 118/218 128/228
7. Enter any previous extension fee paid since above original due date and subtract			- \$0		
8. Extension Fee Attached			+ \$0		
9. If Terminal Disclaimer attached, add Rule 20(d) official fee .....			+ \$110/\$55	+ \$0	148/248
10. If IDS attached requires Official Fee under Rule 97 (c), ..... add or if Rule 97(d) Request ..... add			+ \$180 + \$180	+ \$0	126 126
11. After-Final Request Fee per rules 129(a) and 17(r) .....			+ \$740/370	+ \$0	146/246
12. No. of additional inventions for examination per Rule 129(b) .....			x \$740/370 ea	+ \$0	149/249
13. Request for Continued Examination (RCE) .....			+ \$740/370	+ \$0	1179/1279
14. Petition fee for .....				+ \$0	
15. TOTAL FEE ENCLOSED =			\$0		

16. \*If the entry in this space is less than entry in next space, the "Present Extra" result is "0".

17. \*\*If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.

18. \*\*\*If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.

Our Deposit Account No. 03-3975)

(Our Order No. 038559 0282005

C#

M#

**CHARGE STATEMENT:** The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown above, for which purpose a duplicate copy of this sheet is attached.

This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

Pillsbury Winthrop LLP  
Intellectual Property Group

By Atty: Karry W. Wang

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Applicant: LICHTENHAN, et al.

Serial No. 09/631,892

Filed: August 4, 2000

Title: PROCESS FOR THE FORMATION OF  
POLYHEDRAL OLIGOMERIC SILSESQUIOXANES

\* \* \* \* \*

AMENDMENT AND RESPONSECommissioner for Patents  
Washington, D.C. 20231

Sir:

In response to the Office Action dated April 11, 2002, please enter and consider the following amendment and remarks.

IN THE SPECIFICATION

Please replace the paragraph beginning at page 2, line 1, with the following rewritten paragraph:

C1

--Prior art has reported that bases (e.g., NaOH, KOH, etc.) could be used to both catalyze the polymerization of POSS into lightly networked resins or to convert selected polysilsesquioxane resins into homoleptic polyhedral oligomeric silsesquioxane structures. Marsmann et al have more recently shown that a variety of bases can be used to redistribute smaller homoleptic POSS cages into larger sized homoleptic cages. (Marsmann, H.C. and Rikowski, E., Polyhedron, 1997, 16, 3357-3361). While there is precedent in the literature for treatment of silsesquioxanes and POSS systems with base, the previous art does not afford the selective manipulation of silicon-oxygen frameworks and the subsequent controlled production of POSS fragments, homoleptic POSS nanostructures. Furthermore, the prior art does not provide methods of producing POSS systems suitable for functionalization and



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